

AMENDMENTS TO THE CLAIMS

Please amend claims 1 and 3, add new claim 12, and cancel claims 4-11 without prejudice, as shown in the following listing of claims, which will replace all prior versions and listings of claims in the application. Claims 4-11 are canceled without prejudice to their pursuit in an appropriate continuation or divisional application. Claims 1, 3, and 12 are currently in the application.

Listing of claims:

1 (currently amended). A method of screening a compound or its salt, which promotes or inhibits a function of ~~an orphan receptor protein~~FM-3, comprising:

~~(i) measuring a cell stimulating activity of test compound (a) when test compound (a) is brought in contact with cells expressing an orphan receptor or its cell membrane fractions, and when test compound (a) is brought in contact with cells which do not express the orphan receptor or its cell membrane fractions;~~

~~(ii) comparing the cell stimulating activities thus measured for each test compound (a) to identify compounds having an agonist activity, and extracting a common structure among the compounds having the agonist activity to identify ligand candidate compounds; and~~

~~(iii)~~ ① comparing a cell stimulating activity of the a ligand candidate compound, wherein the ligand candidate compound comprises a peptide having an agonist activity and having a structure of R-X-NH₃ at its C-terminus, which cell stimulating activity is measured when the ligand candidate compound is brought in contact with cells a cell expressing the orphan receptorFM-3 or with its cell membrane fractions, with a cell stimulating activity of test compound (b), wherein test compound (b) comprises a peptide having a structure of R-X-NH₃ at its C-terminus, which cell stimulating activity is measured when test compound

(b) is brought in contact with ~~cells~~ a cell expressing the ~~orphan receptor~~ FM-3 or its cell membrane fractions~~[[,]]~~; and

② measuring amount of specific binding between ~~said orphan receptor protein~~ FM-3 and test compound (b),

wherein, if there is ~~an increase in the amount of specific binding as compared to non-specific binding~~, then test compound (b) is recognized as a compound which promotes or inhibits a function of ~~an orphan receptor protein~~ FM-3 depending on whether test compound (b) strengthens or weakens the cell stimulating activity when test compound (b) is brought in contact with ~~cells~~ a cell expressing the ~~orphan receptor~~ FM-3 or its cell membrane fractions as compared to when the ligand candidate compound is brought in contact with ~~cells~~ a cell expressing the ~~orphan receptor~~ FM-3 or its cell membrane fractions.

2 (canceled).

3 (currently amended). A method of identifying a ligand or its subtypes of ~~an orphan receptor protein~~ FM-3, comprising:

~~(i) measuring a cell stimulating activity of test compound (a) when test compound (a) is brought in contact with cells expressing an orphan receptor or its cell membrane fractions, and when test compound (a) is brought in contact with cells which do not express the orphan receptor or its cell membrane fractions;~~

~~(ii) comparing the cell stimulating activities thus measured for each test compound (a) to identify compounds having an agonist activity, and extracting a common structure among the compounds having an agonist activity to identify ligand candidate compounds;~~

~~[[(iii)]]~~ (i) measuring amount of specific binding between ~~said orphan receptor protein~~ FM-3 and ~~[[the]]~~ a ligand candidate compound, wherein each ligand candidate compound comprises a peptide having an agonist activity and having a structure of R-X-NH₃ at its C-terminus; and

~~[[iv)](ii) selecting from [[the]] among at least two ligand candidate compounds a compound which shows an increase in the amount of~~ has specific binding to said orphan receptor as compared to non-specific binding FM-3, wherein each ligand candidate compound is obtained by:

(a) measuring a cell stimulating activity of test compound (a) when test compound (a) is brought in contact with a cell expressing FM-3 or its cell membrane fractions, and when test compound (a) is brought in contact with a cell which does not express FM-3 or its cell membrane fractions;

(b) comparing the cell stimulating activities thus measured for each test compound (a) to identify ligand candidate compounds having an agonist activity; and

(c) determining a common structure of the ligand candidate compounds.

4. – 11. (canceled)

12 (new). The method of claim 1, wherein said ligand candidate compound is obtained by:

(i) measuring a cell stimulating activity of test compound (a) when test compound (a) is brought in contact with a cell expressing FM-3 or its cell membrane fractions, and when test compound (a) is brought in contact with a cell which does not express FM-3 or its cell membrane fractions;

(ii) comparing the cell stimulating activities thus measured for each test compound (a) to identify ligand candidate compounds having an agonist activity; and

(iii) determining a common structure of the ligand candidate compounds.